

Claims

1. A method for treatment of the exhaust of an internal combustion engine in which a fluid is used as an auxiliary agent for the treatment, characterized in that a partial chemical conversion of the auxiliary agent is at least occasionally stimulated in order to produce a substance that reduces the freezing point of the fluid when the temperature of the fluid falls below a critical value.
2. The method according to claim 1, characterized in that the conversion of the auxiliary agent occurs before the auxiliary agent is introduced into the exhaust.
3. The method according to claim 1 or 2, characterized in that the fluid is drawn from a tank and supplied to the exhaust via lines, characterized in that the stimulation occurs in a partial region of the tank or in a fluid volume contained in the lines so that a sufficient quantity of the substance can be distributed in the fluid volume in order to achieve a uniform freezing point reduction.
4. The method according to one of the preceding claims, characterized in that the stimulation occurs through the supply of heat.
5. The method according to claims 3 and 4, characterized in that during the time in which the heat is supplied, the partial region of the fluid is heated to a temperature above 60° Celsius.

6. The method according to one of claims 4 or 5, characterized in that due to a spatial distribution, the supply of heat causes only a slight temperature increase in the fluid volume over time.
7. The method according to claim 6, characterized in that the slight temperature increase lies in the range between 5 Kelvin and 50 Kelvin.
8. The method according to one of the preceding claims, characterized in that the freezing point is reduced by 10 to 30 Kelvin.
9. The method according to the preceding claims, characterized in that the concentration of the substance in the fluid and/or the temperature of the fluid is measured and the intensity and/or duration of the stimulation is established as a function of the concentration of the substance and/or the temperature.
10. The method according to claim 9, characterized in that the concentration and/or the temperature is measured in the partial region.
11. The method according to one of the preceding claims, characterized in that the substance is a gas that is soluble in the fluid.
12. The method according to one of the preceding claims, characterized in that a urea/water solution is used as the fluid and ammonia is the substance.

13. A device for treatment of the exhaust of an internal combustion engine in which a fluid (1) is used as an auxiliary agent for the treatment, characterized in that means (2, 3, 4, 5, 3a, 4a, 5a, 14) are provided for at least occasionally stimulating a partial chemical conversion of the auxiliary agent into a substance that reduces the freezing point of the fluid, the means being disposed and/or embodied so as to permit the stimulation to occur when the temperature of the fluid falls below a critical value.